R E M A R K S

Careful review and examination of the subject application are noted and appreciated.

The present invention concerns a device comprising an outer portion that may comprise an electrically insulative material, having dimensions effective to (i) prevent or inhibit plasma arcing to an electrically conductive surface of a plasma processing chamber aperture and (ii) fit the plasma processing chamber aperture within a predetermined tolerance, and an inner opening, completely surrounded by the electrically insulative material of the outer portion, having dimensions effective to enable transmission of a physical signal, a gas, a gas mixture or other material through the device.

SUPPORT FOR THE CLAIM AMENDMENTS

Support for the amendments to the claims may be found in the drawings (e.g., FIG. 1) and the specification (e.g., page 8, lines 1-13, page 9, line 17-page 11, line 16, page 14, lines 14-17, and page 18, line 12-page 19, line 2) as originally filed. As such, no new matter has been added.

CLAIM REJECTIONS UNDER 35 U.S.C. §112

The rejection of claim 11 under 35 U.S.C. §112, second paragraph, has been obviated by appropriate amendment and should be withdrawn.

CLAIM REJECTIONS UNDER 35 U.S.C. §102

The rejection of claims 1-11 under 35 U.S.C. §102 as being anticipated by Foster et al. '640 has been obviated by appropriate amendment and should be withdrawn.

Foster et al. disclose a method and apparatus for depositing a film on a substrate by plasma-enhanced chemical vapor deposition (Abstract). Foster et al. disclose a RF showerhead/electrode 222 that includes a stem 252 with a ridge 266. A ceramic tray 268 is supported by the ridge 266, and in turn, supports two isolator sleeves 270 and 271 (column 18, lines 33-41 of Foster). The isolator sleeves are disposed centrally inside a cylinder 238 (FIG. 2B of Foster). Foster appears silent regarding the isolator sleeves having dimensions effective to fit a plasma processing chamber aperture within a predetermined tolerance, as presently claimed.

In contrast, the presently claimed invention provides an outer portion comprising an electrically insulative material, having dimensions effective to (i) prevent or inhibit plasma arcing to an electrically conductive surface of a plasma processing

chamber aperture **and** (ii) **fit the plasma processing chamber aperture within a predetermined tolerance.**

Assuming, *arguendo*, that the cylinder 238 is similar to a plasma processing chamber aperture as presently claimed, Foster et al. do not disclose or suggest all the elements of the presently pending claims. Specifically, since the isolator sleeves of Foster et al. are supported within the cylinder 238 by the ceramic tray 268 which is supported by the ridge 266 of the RF showerhead/electrode 222, it follows that the isolator sleeves are dimensioned to fit the ceramic tray rather than a plasma processing chamber aperture as presently claimed. Therefore, Foster et al. do not appear to disclose a device comprising an outer portion comprising an electrically insulative material, having dimensions effective to (i) prevent or inhibit plasma arcing to an electrically conductive surface of a plasma processing chamber aperture **and** (ii) **fit the plasma processing chamber aperture within a predetermined tolerance**, as presently claimed. As such, Foster et al. do not disclose or suggest all the elements of the presently pending claims and the rejection should be withdrawn.

Accordingly, the present application is in condition for allowance. Early and favorable action by the Examiner is respectfully solicited.

The Examiner is respectfully invited to call the Applicants' representative should it be deemed beneficial to

further advance prosecution of the application.

If any additional fees are due, please charge our office Account No. 50-0541.

Respectfully submitted,

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

Please amend the claims as follows:

1. (AMENDED) A device comprising:

an outer portion comprising an electrically insulative material, having dimensions effective to (i) prevent or inhibit plasma arcing to an electrically conductive surface of a plasma processing chamber aperture[,] and (ii) fit said plasma processing chamber aperture within a predetermined tolerance; and

an inner opening, completely surrounded by the electrically insulative material of the outer portion, having dimensions effective to enable transmission of a physical signal, [or] a gas, a gas mixture or other material through the device.

5. (AMENDED) A plasma processing chamber having:

at least one aperture therein, the at least one aperture having an exposed electrically conductive surface, and

a device inside the aperture, the device comprising an electrically insulative material and having

(i) dimensions effective to (a) prevent or inhibit plasma arcing to the exposed electrically conductive surface of the aperture and (b) fit said aperture within a predetermined tolerance; and

(ii) an inner opening completely surrounded by the electrically insulative material, the inner opening having

dimensions effective to enable transmission of a physical signal, [or] a gas, a gas mixture or other material through the device.

6. (AMENDED) A method of making a plasma processing chamber, the chamber having at least one aperture therein, the at least one aperture having an exposed electrically conductive surface, the method comprising inserting a device into the aperture, the device comprising an electrically insulative material and having:

dimensions effective to (i) prevent or inhibit plasma arcing to the exposed electrically conductive surface of the aperture[,] and (ii) fit said aperture within a predetermined tolerance; and

an inner opening completely surrounded by the electrically insulative material, the inner opening having dimensions effective to enable transmission of a physical signal, [or] a gas, a gas mixture or other material through the device.

8. (AMENDED) A method of processing a workpiece, comprising:

exposing the workpiece to a plasma in a chamber, the chamber having at least one aperture therein, the at least one aperture having

1) an exposed electrically conductive surface; and

2) a device in the aperture, the device comprising an electrically insulative material and having

(i) dimensions effective to <u>(a)</u> prevent or inhibit plasma arcing to the exposed electrically conductive surface of the aperture <u>and (b) fit said aperture within a predetermined tolerance</u>; and

(ii) an inner opening completely surrounded by the electrically insulative material, the inner opening having dimensions effective to enable transmission of a physical signal, [or] a gas, <u>a</u> gas mixture or other material through the device; and

(iii) transmitting a physical signal, [or] a gas, <u>a</u> gas mixture or other material through the device into or out from the chamber.

11. (AMENDED) The method of Claim 9, further comprising, prior to [said inserting] <u>step B</u>, the steps of:

exposing a workpiece to the plasma, and

transmitting a physical signal, [or] a gas, <u>a</u> gas mixture or other material through the device into or out from the chamber.

Please add the following new claims:

12. (NEW) The device according to claim 1, further comprising:

a lower section having a first width effective to fit the plasma processing chamber aperture within said predefined tolerance; and

an higher section having a second width that is greater than a corresponding width of said plasma processing chamber aperture.

13. (NEW) The device according to claim 12, wherein said higher section is disposed outside of said plasma processing chamber aperture.

14. (NEW) The device according to claim 12, wherein said lower section has a first length and said higher section has a second length.

15. (NEW) The device according to claim 14, wherein said first length is greater than or equal to a length of a channel section of said plasma processing chamber aperture.

16. (NEW) The device according to claim 1, wherein an end of said device has an angle, said angle measured with reference to a bottom of said device.

17. (NEW) The device according to claim 16, wherein said angle is non-orthogonal.

18. (NEW) The device according to claim 1, wherein said physical signal comprises a spectroscopic endpoint detection signal.

19. (NEW) The plasma processing chamber of claim 2, wherein said at least one aperture comprises an endpoint detection channel.

20. (NEW) The device according to claim 1, wherein the electrically insulative material is selected from the group consisting of ceramics, multi-crystal ceramics, polyvinyl polymers, polytetrafluoroethylene, polyethylene, polypropylene, polyimides, polycarbonates and single crystal insulative minerals.